

# Specification

**Model:** Z7003XBD/Z7005XBD

## Description:

Z7003XBD: 323\*30mm, 3pcs XB-D LED, monochromatic, lens technology, waterproof with silicon injected, constant current, DC24V, rigid LED light

Z7005XBD: 543\*30mm, 5pcs XB-D LED, monochromatic, lens technology, waterproof with silicon injected, constant current, DC24V, rigid LED light

# Specification

**Product Name:** Waterproof Rigid LED Light for Side Lighting

**Model:** Z7003XBD/Z7005XBD

Z7003XBD



Z7005XBD



## Applications

Waterproof products, suitable for indoor and outdoor single-sided light box of no more than 200cm[78.74in] width and 8-20cm[3.15~7.87] depth and 14-40cm[5.51~15.75] depth double-sided light box.

## Features

Luminous efficacy up to 97 lm/W with high power Cree LED mounted;

Uniform illumination on the face of light box with tens technology;

Energy efficient and environment-friendly with brightness adjustable design, optimized brightness can be achieved at different time;

Quick and easy installation with extruded aluminum profile provided;

CE certificated, RoHS compliant and UL94 V-2 flame-retardant grade.

## Installation

Initially fixed with double-sided adhesive tape and further secure with self-provided screws.

## Warranty

5 years or 22,000 hours, whichever come first.

## Optical and Electrical Parameters:

P/N	LED Color	Color Temperature(K) Wavelength(nm)	Beam Angle (°)	Luminous Flux (lm)	CRI	Luminous Efficacy lm/W	Working Voltage (V DC)	Working Current (mA)	Power (W)
Z7003XBD	Natural White	6000	10*40	660	≥75	97	24	283	6.8
	Warm White	3000		501		74			
	Daylight White	4500		570		84			
Z7005XBD	Natural White	6000		1100		100		458	11.0
	Warm White	3000		835		76			
	Daylight White	4500		950					

## Others:

P/N	LED Color	Length		LED Quantity (pcs)	Weight (g/pc)		Operating Temperature		Storage Temperature		IP Grade
		(mm)	(in)		g	lb	(℃)	(℉)	(℃)	(℉)	
Z7003XBD	Natural White	323	12.72	3	280	0.617	-25 ~ +60	-13~+140	-25 ~ +70	-13~+158	IP65
	Warm White										
	Daylight White										
Z7005XBD	Natural White	543	21.38	5	460	1.014					
	Warm White										
	Daylight White										

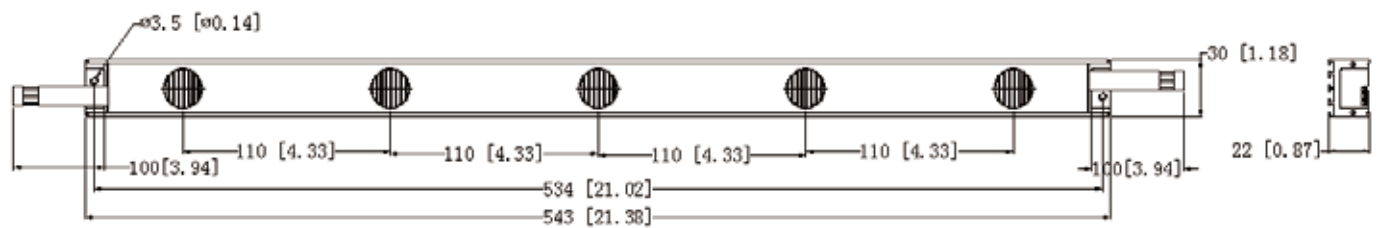
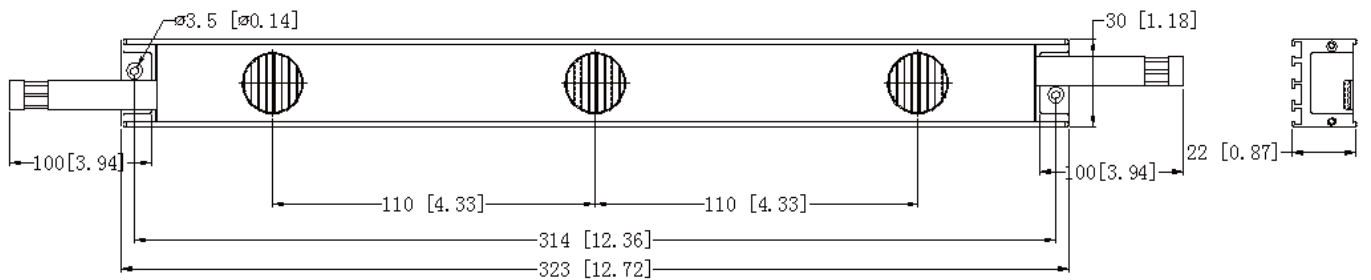
## Notes:

Testing environment temperature: 25±2°C[77±3.6°F];

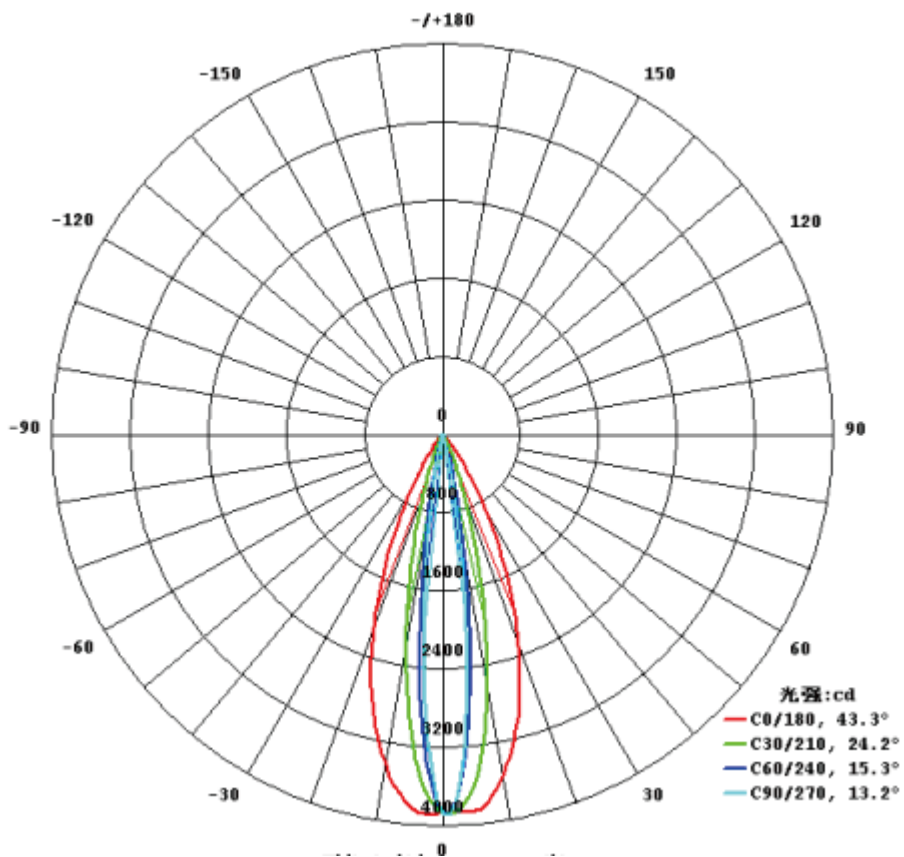
The above data are typical values; the actual data of each single product could differ from the typical values. The data subject to change without prior notice.

## Profile Drawings:

Unit: mm[in]

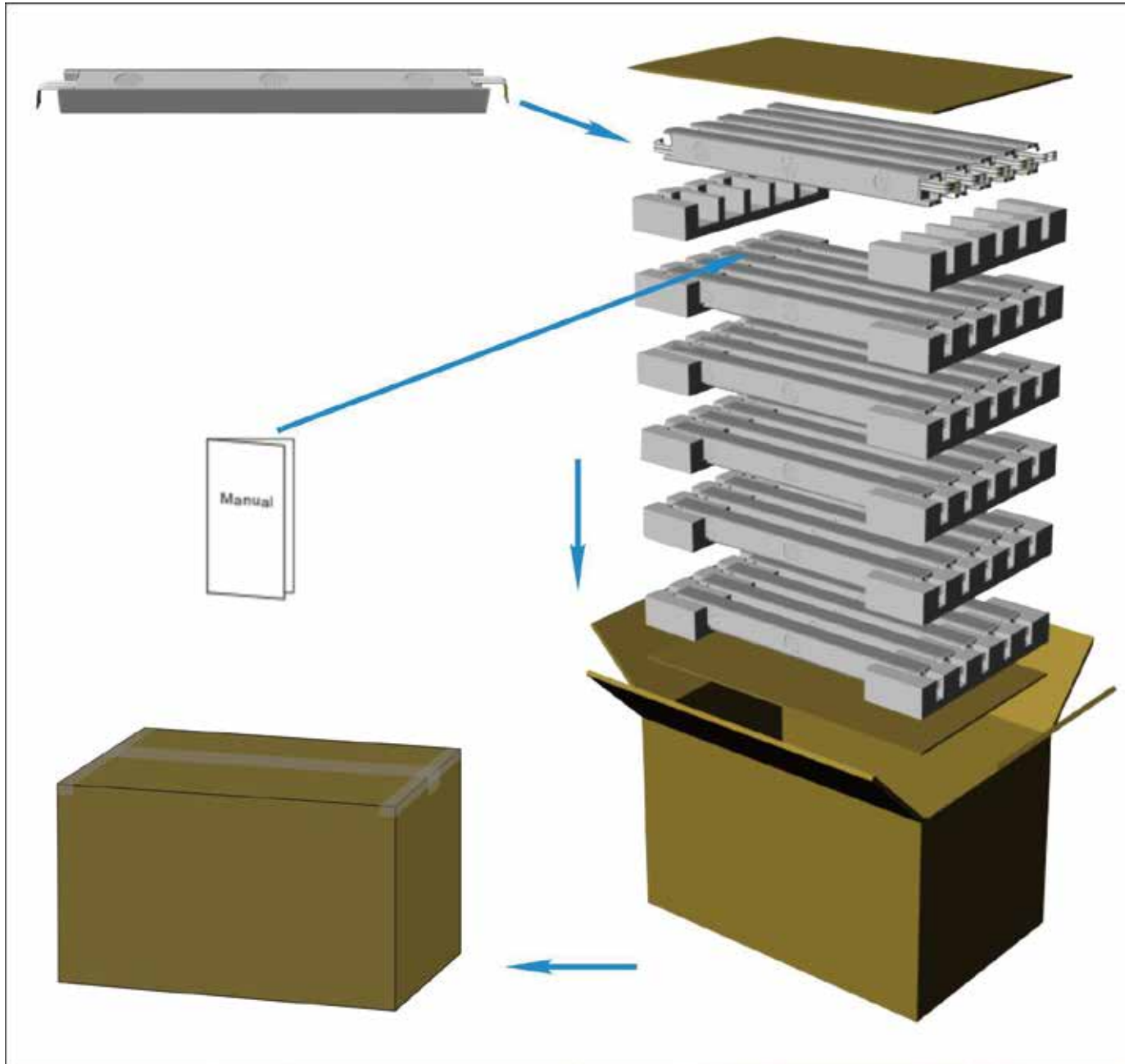


## Light Distribution:



## Packaging Diagram

Z7003XBD



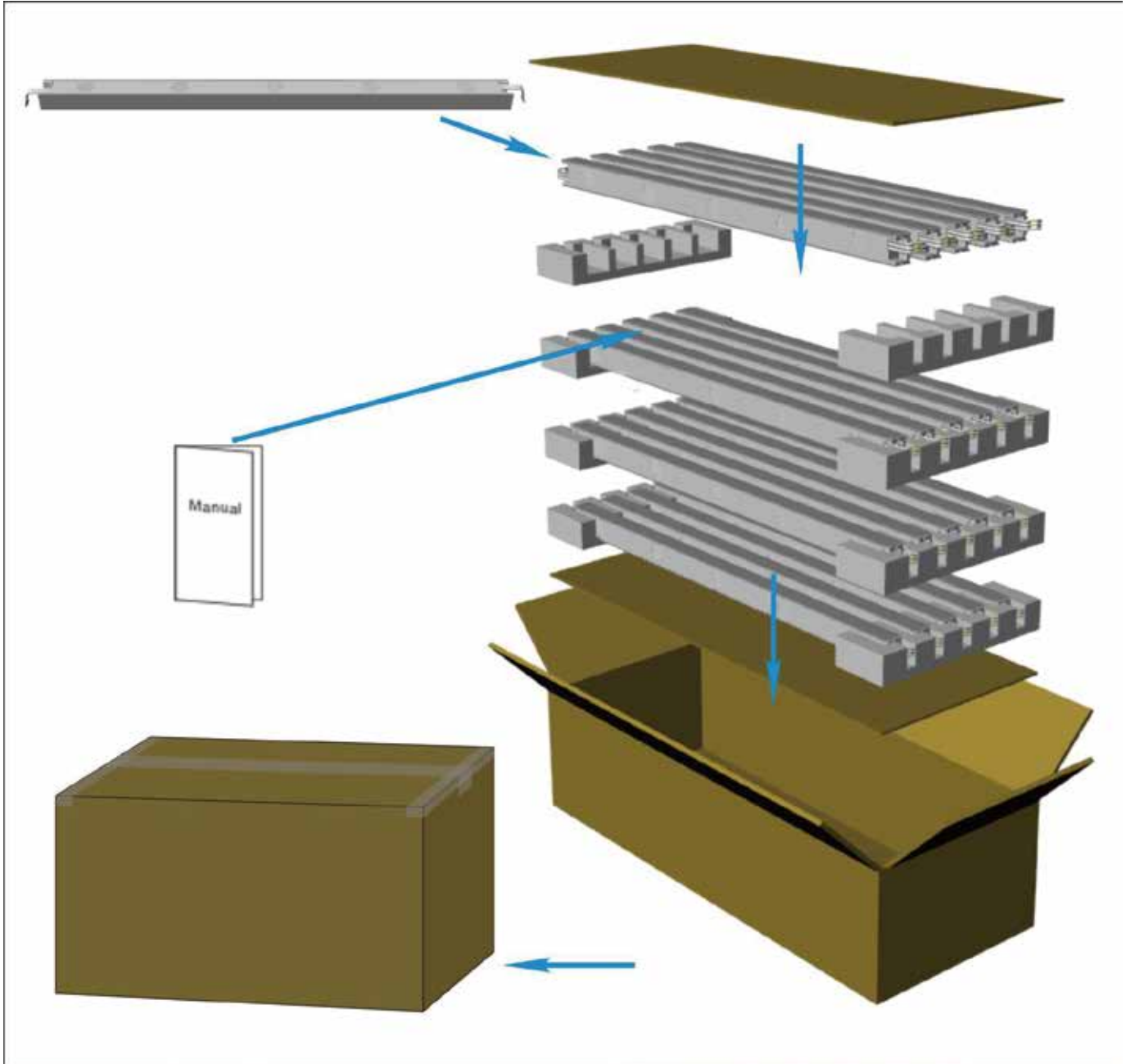
## Packaging:

Carton Dimension: 38.5\*24.5 \*22cm=0.0207(1±10%)CBM [15.16\*9.65\*8.66in]

5 products per layer, 6 layers in total, totally 30 products, 1 manual and 1 bag of twist-on wire connectors per carton.

Net Weight(N.W): 8.4(1±10%)kg [18.519(1±10%)lb]; Gross Weight(G.W): 9.3(1±10%)kg [20.503(1±10%)lb].

# Z7005XBD



## Packaging:

Carton Dimension: 60 \* 24.5 \* 15 cm = 0.022 (1±10%) CBM [23.62 \* 9.65 \* 5.91 in]

5 products per layer, 4 layers in total, totally 20 products, 1 manual and 1 bag of twist-on wire connectors per carton.

Net Weight (N.W): 9.6 (1±10%) kg [21.164 (1±10%) lb]; Gross Weight (G.W): 10.2 (1±10%) kg [22.487 (1±10%) lb].

Note: The actual packed quantity and weight subject to change without prior notice.

NOTES

1.Installation Notes

- 1) Clean the mounting surface before installing the products.
- 2) Make sure the polarity of connections made at the rigid LED light and power supply is correct, otherwise the products will not light.
- 3) The connection made at DIM end must be correct, or the products will be destroyed (If the product is not connected to the dimming function, please cut the exposed wire of DIM and insulate the cut end for water resistance).
- 4) Connect the wires of rigid LED light to power supply firmly; it will be fine until the wires cannot be pulled out.
- 5) The maximum power per string cannot exceed 100W.
- 6)The supply wires between the power supply and the rigid LED light is no longer than 0.5m(19.69in) when the maximum quantity of products are used and the supply wires should be AWG18# or thicker wires, or the connected quantity should be reduced.

2.Notes for Optional Supplies

- 1) Forbid using any acid or alkaline adhesive to secure the products.
- 2) Please choose the safety-certificated switch power supply with 24VDC output voltage (with short-circuit, overvoltage and overcurrent protections; the tolerance range for output voltage of the power supply is  $\pm 5\%$ ).If more products needed, ensure the power supply has more than 20% load reserve.

Malfunctions &Solutions Table

Malfunction & Solutions Table		
Symptoms	Possible Causes	Solutions
All the rigid LED lights do not light	1. There is no primary power.	Power on.
	2. Short circuit occurs at the input of power supply; No primary power for the power supply; The power supply is auto protected since the short or open circuit occurs at the output of the power supply;	Remove any short or open circuits and other malfunctions, and energize the fixture.
	3. The input wires of the rigid LED lights are connected reversely.	
Some rigid LED lights do not light	1. No primary power for some switch power supplies.	Check the power supply and remove malfunctions.
	2. Some rigid LED lights are wrongly connected to the power supply.	
	3. Some rigid LED lights' polarities are connected reversely.	Connect the wires correctly.

Malfunction & Solutions Table(Continued)		
Symptoms	Possible Causes	Solutions
Brightness of the LED is dim or not even	1. The power supply is over loaded.	Use higher or more power supplies.
	2. The wire loss of the power supply is too much.	Make sure the working voltage of rigid LED light is within 95%-105% of the rated voltage, shorten the supply wire between the power supply and the first rigid LED light or use thicker supply wires.
	3. Too many rigid LED Lights are connected.	Adjust the quantity of LED lights for each string to meet the maximum quantity per string.
LEDs are blinking	1. Intermittent connections exist.	Find the intermittent connections and remove any malfunctions.
	2. Switch power supply doesn't work.	Replace the power supply.

⚠ WARNING

- This product is waterproof, can be used in outdoor environment.
- Forbid disassembling or modifying this product.
- Do not install the products with power on.
- The products should be installed or maintained ONLY by the professional persons.
- Check the supply voltage and wire connections before energizing the fixture.
- These products are suitable for use in dry, damp and wet locations. Considering the products' feature, it is recommended to use in dry location only.
- These products are only suitable for connection to a circuit from a Class 2 power source.
- These products have not been evaluated for use when connected to a power source that does not comply with Class 2 voltage and energy limited supplies.
- For wet location products, these products are not required to be enclosed or protected from weather.

Declaration

- Warranty: 5 years or 22,000 hours, whichever comes first.
- If the external flexible cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.
- All the data and pictures in this manual are subject to actual products.
- Information provided is subject to change without notice.

Rigid LED Light for Side Lighting  
Manual

Z7003XBD    Z7005XBD



Read this manual carefully before using this product and keep it!

## Model and Specification

Series	Rigid LED Light for Side Lighting	
Model	Z7003XBD	Z7005XBD
Power ( W )	6.8	11

Working Voltage ( V DC ) : 24

Operating Temperature (°C/°F) : -25~60[-13~140]

Storage Temperature(°C/°F) : -25~70[-13~158]

Applications: This product is waterproof, can be used in indoor or outdoor single-sided light box of 200cm(78.74in) width or height and 8-20cm(3.15-7.87in) depth or double-sided light box of 14-40cm(5.51-15.75in) depth.

## Profile Drawings

Unit:mm[in]



Fig.1 Z7003XBD

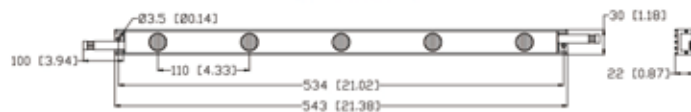


Fig.2 Z7005XBD

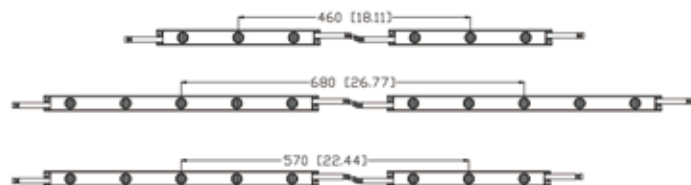
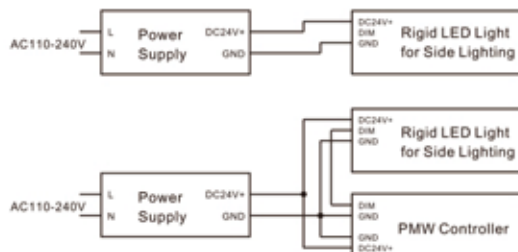


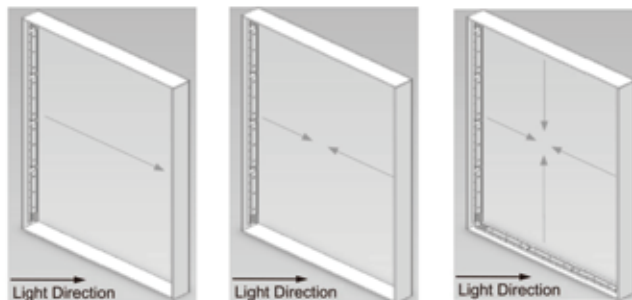
Fig.3

## Product Components and Tools Required

### 1. Installation and Connection Illustration :



### 2. Application and Installation Illustration :



Notes :

1. The maximum gap between the two products is 140mm(5.51in);
2. DIM end: dimming function with PWM signal , the range of the signal is 0~+5V;
3. The border of the light box should be painted as white or made of the highly reflective material.

### 3.Product Components and Tools Required :

#### 1. Product Components



Z7003XBD / Z7005XBD



Twist-on wire Connector

#### 2.Tools and Supplies Required



Electrical Drill &Drilling Bit



Glass Glue



Self-tapping Screws  
(match with the pre-mounting holes)

## Installation and Application Examples

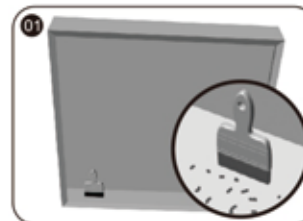
### Reference Scheme

Size: Length*Width(m[in])	Depth(mm[in])	Layout	Surface Illuminance(lux)
2.0*1.5[78.74*59.06]	300[11.81]	1.5m(59.06in) two sides light	500
2.0*1.5[78.74*59.06]	300[11.81]	2.0m(78.74in) two sides light	441
1.5*1.0[59.06*39.37]	180[7.09]	1.5m(59.06in) two sides light	599
1.5*1.0[59.06*39.37]	180[7.09]	1.0m(39.37in) two sides light	835

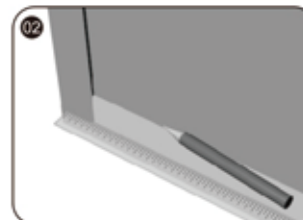
Notes :

- 1.The above layout data are based on the product with 6000K color temperature;
2. The test is done with double-sided light box with 40% luminous transmittance 3M P2 white flex banner.
- 3.The above illuminance values are the average values with uniform surface illumination under this depth;
4. The above data are for reference only.

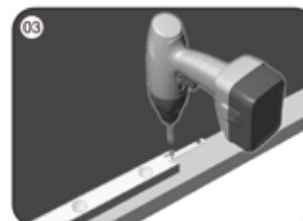
## Installation Procedures



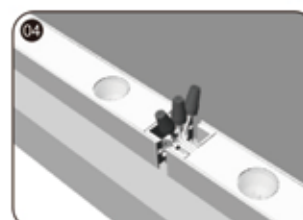
- Remove any debris from the mounting surface.



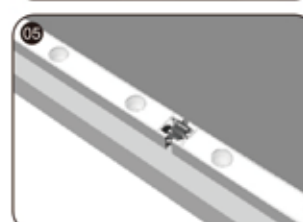
- Determine the mounting positions.  
The best gap between two products is 7mm[0.28in] (adjustable range is 0~140mm[0-5.51in]).



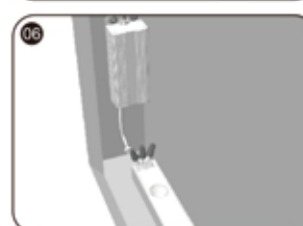
- Secure the products with screws.



- Connect the products with twist-on wire connectors and treat the connectors with glass glue.



- Hide the twist-on wire connectors and wires in the gap between the two products.



- Connect the products to the power supply (connect to the PWM controller meanwhile if needed).